Dear Colleague,

We are delighted to invite you to San Diego, California, September 23-24 for the Tumor Section Satellite Symposium, which immediately precedes the 2016 CNS Annual Meeting. Our meeting theme this year is Low-grade Gliomas: Management Strategies & Innovations.

At this two-day event, we will offer engaging scientific sessions covering recent clinical trials, tumor guidelines, and next-generation techniques in surgical, medical, and radiation therapies for adult and pediatric patients. The program includes two lunch symposia, oral and digital poster abstract sessions, keynote lectures from Mitch Berger, Hugues Duffau, and James Rutka, and presentations from other global experts in the field.

For residents, fellows, and junior attendings, we have added new small-group breakfast sessions to connect you with senior mentors. Breakfast session topics include how to set up a practice, how to start a lab, and how to seek out academic positions.

A ticket to the 31st Anniversary Gala Reception on Friday evening is included in your registration. Always a highlight, this social event presents an ideal opportunity to reconnect with friends and build your network with brain tumor specialists from around the world.

Our meeting venue, the San Diego Convention Center, is located conveniently near some of the city’s most popular attractions, from the breathtaking deep-water harbor and pristine Pacific beaches to the historic Gaslamp District, Balboa Park, and Coronado Island. Children of all ages will enjoy excursions to SeaWorld, Legoland, and the world-famous San Diego Zoo and Safari Park.

When you register for the Tumor Section Satellite Symposium at www.cns.org/tumor, you also receive a special promo code for $100 off the CNS Annual Meeting—just one more reason to join us this September. We look forward to seeing you in San Diego.

Sincerely,

[Signatures]

SECTION CHAIR
Steven N. Kalkanis, MD
Henry Ford Hospital
Detroit, MI

MEETING CHAIR
Chetan Bettegowda, MD, PhD
Johns Hopkins University Hospital
Baltimore, MD

MEETING CHAIR
Brian V. Nahed, MD, MSc
Massachusetts General Hospital
Boston, MA
Who Should Attend

Tumor neurological surgeons, residents, fellows, medical students, nurse clinicians, and physician assistants are welcome and encouraged to attend the Tumor Section Satellite Symposium. Educational sessions are directed toward these audiences and are directly applicable to their practices.

Symposium Description
This symposium will provide an up-to-date overview of the management of low-grade tumors in adult and pediatric patients, emphasizing cutting-edge and next-generation techniques in medical, surgical, and radiation therapies. It will identify the molecular and genetic changes and efforts to target these mutations in state-of-the-art therapy.

Learning Objectives
Upon completion of this symposium participants should be able to:
- Develop treatment strategies for patients with low-grade glioma at diagnosis and recurrence
- Discuss advancements in understanding of low-grade glioma biology and relevance to outcome
- Discuss emerging surgical, medical, and radiation techniques to achieve the best outcome

Accreditation Statement
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council of Continuing Medical Education (ACCME) through the joint providership of the Congress of Neurological Surgeons and the Tumor Section. The CNS is accredited by the ACCME to provide continuing medical education for physicians.

AMA Credit Designation Statement
The CNS designates this live activity for a maximum of 15AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Mid-Level Practitioners
Attendees will receive a certificate of attendance. Please contact your individual membership association and certification board to determine the requirements for accepting credits.
Friday, September 23, 2016
8:00 am–5:00 pm
Registration

General Session 1: Biology and Management of LGG
10:00–10:10 am
Opening Remarks
Chetan Bettegowda, Brian Nahed, and Steve Kalkanis

10:10–10:25 am
Biology of Low-grade Gliomas
Bob Jenkins

10:25–10:40 am
Diagnosis: Medical Management/Chemotherapy and Timing
Susan Chang

11:00–11:15 pm
Joint Section on Tumors Guidelines
Jeff Olson

12:10–1:10 pm
Lunch with Exhibitors in the Exhibit Hall

KEYNOTE SPEAKER 1
10:40–11:10 am
Maximizing Resection for Survival/When to Operate
Mitchel S. Berger, MD. Chair of neurological surgery at University of California San Francisco, is a nationally recognized expert in treating brain and spinal cord tumors and tumor-related epilepsy in adults and children. He also is a specialist in brain mapping techniques, used to identify areas of motor, sensory and language function during surgery, and an expert in the use of the Gamma Knife for tumor treatment. He is co-director of the Adult Brain Tumor Surgery Program, director of the Brain Tumor Research Center and director of the Center for Neurological Injury and Repair.

11:10–11:25 am
Radiation Therapy
Jennifer Yu

11:25–11:40 am
Recurrence and Progression to High Grade
Houtan Noushmehr

11:40–11:55 am
Clinical Trials, Targeted Therapies, Mechanisms
Steven Yip

11:55 am–12:10 pm
Joint Section on Tumors Guidelines
Jeff Olson

General Session 2: Surgical Techniques and Adjuvant Therapy
1:15–1:45 pm
Mapping Intraoperatively to Maximize Resection
Hugues Duffau, MD, PhD. Professor and head of the department of neurosurgery at the University Hospital Centre of Montpellier, France. A leading expert on low-grade glioma surgery, Dr. Duffau pioneered surgery of still-conscious patients with brain tumors, resulting in a new model of the brain based on plasticity and connectivity. He has authored more than 225 publications and four books, including Brain Mapping: From Neural Basis of Cognition to Surgical Applications, published in 2011.

1:45–1:55 pm
Pre-operative Imaging/fMRI
Speaker to be announced

1:55–2:05 pm
Intraoperative Imaging
Christian Rainer Wertz

2:05–2:15 pm
Intraoperative Ultrasound
Francesco DiMeco

2:15–2:25 pm
Intraoperative 5-ALA
Walter Stummer

2:25–2:35 pm
Fluorescent Alkylphosphocholine for Intraoperative Detection
John Kuo

2:35–2:45 pm
Intraoperative Mass Spectroscopy
Kevin Petrecea

2:45–2:55 pm
Raman Spectroscopy
Steve Kalkanis

2:55–3:05 pm
Intraoperative Viral Vectors
Manish Aghi

3:05–3:30 pm
Break with Exhibitors

3:30–5:00 pm
Abstract Presentations 1: Selected Oral Abstract Presentations and Discussion
Introduction: Chetan Bettegowda and Brian Nahed

7:00–10:00 pm
31st Anniversary Gala Reception at the historic US Grant Hotel
Presentation of the Wilson Award, Distinguished Service Award, and Mentoring Award
Program Schedule

Saturday, September 24, 2016
7:00 am–12:00 pm
Registration
7:00 am–5:00 pm
Abstract Digital Poster Viewing in Exhibit Hall

Breakfast Breakouts for Residents, Fellows, Medical Students, and Young Attendings

8:00–9:00 am
Developing an Independent Research Program/Lab as a Neurosurgeon
John Sampson and Manish Aghi

8:00–9:00 am
Neurosurgeons as Clinical Trial Investigators
Fred Barker, Michael Vogelbaum, and Michael Lim

8:00–9:00 am
Finding a Neurosurgery Position as a Brain Tumor Surgeon
Bob Carter and Ricardo Komotar

9:10–10:20 am
Abstract Presentations 2: Selected Oral Abstract Presentations and Discussion

10:20–10:40 am
Break with Exhibitors

12:00–1:00 pm
Lunch with Exhibitors in the Exhibit Hall

1:00–1:45 pm
Abstract Presentations 3: Selected Oral Abstract Presentations and Discussion

General Session 3:
Pediatric Low-grade Tumors

10:40–10:50 am
Opening Remarks
Chetan Bettegowda and Brian Nahed

10:50–11:10 am
Medical Management of Pediatric Low-grade Tumors
Speaker to be announced

11:10–11:30 am
Radiation of Pediatric Low-grade Tumors
Mary McAleer

11:30 am–12:00 pm
Surgery for Pediatric Low-grade Tumors

James Rutka, MD, PhD, is RS McLaughlin Professor and Chair of the Department of Surgery at the University of Toronto, and also serves on the surgical staff at the Hospital for Sick Children in the Division of Pediatric Neurosurgery. Editor-in-chief of the Journal of Neurosurgery, Dr. Rutka’s primary research and clinical interests relate to the science and surgery of human brain tumors. His laboratory interests lie in the molecular biology of human brain tumours—specifically in the determination of the mechanisms by which brain tumors grow and invade. His recent clinical interests have centered on the surgical treatment of epilepsy in children. He has over 400 peer-reviewed publications.

KEYNOTE SPEAKER 3

11:30 am–12:00 pm
Surgery for Pediatric Low-grade Tumors

General Session 4:
Outcomes and the Future

1:45–2:05 pm
Molecular Classification and Outcomes of Low-grade Glioma
Adam Resnick

2:05–2:25 pm
Upcoming Targets in Low-grade Glioma
Andrew S. Chi

2:25–2:45 pm
Emerging Technologies Monitoring for Recurrence/Progression
Brian Nahed, Chetan Bettegowda, Clark Chen

2:45–3:00 pm
Parsa Mentoring Award

Attend both the 2016 Tumor Section Satellite Symposium and the 2016 CNS Annual Meeting, and save $100 off your CNS Annual Meeting Registration! See your 2016 Tumor Section Satellite Symposium registration confirmation email for further details.
General Information

Airport/Ground Transportation
The Tumor Section Satellite Symposium hotels and the San Diego Convention Center are located approximately four miles from the San Diego International Airport (SAN).

Taxis are readily available at the Transportation Plazas in front of Terminal 1 and 2 at the San Diego International Airport.

Americans with Disabilities Act
The Tumor Section wishes to take those steps to ensure that no individual with a disability is excluded, denied services, segregated, or otherwise treated differently than other individuals because of the absence of auxiliary aids or services. If you require any of the auxiliary aids or services identified in the Americans with Disabilities Act in order to attend any program please send your requirements directly to the CNS Meetings Department at meetings@cns.org or by calling 847-240-2500.

Attire
Professional attire is appropriate for the meeting and in the Exhibit Hall. Professional/dressy attire is appropriate for the Friday, September 23, Gala Reception.

Climate/Time Zone
San Diego, California is categorized as a Mediterranean climate. It enjoys mild, sunny weather throughout the year. In September, expect an average high of 75 degrees Fahrenheit with the low averaging 65 degrees Fahrenheit. It is recommended checking the weather forecast two days before your flight for the latest on the weather and temperature. Please use this information to pack appropriately.

San Diego is located in the Pacific Daylight Time Zone.

Digital Posters
Digital Posters are displayed electronically in the Exhibit Hall during exhibit hall hours, and can be searched by author, topic, or keyword.

Things to Do and Places to Go!
For information go to visitsandiego.com. The city offers a variety of fun activities for the business traveler as well as families.

WiFi Service
For your convenience, complimentary Wi-Fi service is provided by the CNS throughout the San Diego Convention Center wherever Tumor Section events are being held.

Disclaimer
The material presented at the 2016 Tumor Section Satellite Symposium has been made available by the Tumor Section for educational purposes only. The material is not intended to represent the only, nor necessarily the best, method or procedure appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement, or opinion of the faculty which may be helpful to others who face similar situations.

Neither the content (whether written or oral) of any course, seminar, or other presentation in the program, nor the use of a specific product in conjunction therewith, nor the exhibition of any materials by any parties coincident with the program, should be construed as indicating endorsement or approval of the views presented, the products used, or the materials exhibited by the Tumor Section or by its Committees or Affiliates.

The Tumor Section disclaims any and all liability for injury or other damages resulting to any individual attending the meeting, and for all claims which may arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by physicians or any other person.

No reproductions of any kind, including audiotapes and videotape, may be made of the presentations at the Tumor Section Satellite Symposium. The Tumor Section reserves all of its rights to such material, and commercial reproduction is specifically prohibited.

Exhibit Hall Hours

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<tr>
<td>Friday, September 23</td>
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<td>Saturday, September 24</td>
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Admittance to the Exhibit Hall is by Tumor Section Satellite Symposium name badge only. Children under the age of 18 are not allowed in the Exhibit Hall.

Smoking
The San Diego Convention Center and official CNS hotels are non-smoking facilities.

Speaker Ready Room
All speakers and abstract presenters should visit the Speaker Ready Room at the San Diego Convention Center prior to their presentations.

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Image courtesy of visitsandiego.com
Registration and Housing Information

Online Registration
Go to cns.org/tumor to register online. Visa, MasterCard or American Express are accepted forms of payment. The online Advance Registration is the most immediate and secure method of registration.

Paper Registration
Detach and complete the Advance Registration Form with credit card information and send by one of the following methods:

Fax: 847-240-0804  
Email: meetings@cns.org  
Mail with check or credit card information to:
CNS Meetings Department  
10 North Martingale Road, Suite 190  
Schaumburg, IL 60173

For wire transfers or questions regarding the 2016 Tumor Section Satellite Symposium, please call 847-240-2500.

Cancellations/Refunds
Requests for registration cancellation must be made in writing and sent to:
CNS Meetings Department  
10 North Martingale Road, Suite 190  
Schaumburg, IL 60173  
Fax: 847-240-0804  
Email: meetings@cns.org

All qualifying refunds will be processed and mailed following the 2016 Tumor Section Satellite Symposium. Please allow four to six weeks for processing.

Refunds will be made in accordance with the following schedule:
- Cancellations received on or before August 25, 2016, will receive a full refund less a $50 processing fee.
- Cancellations received between August 26, 2016, and September 18, 2016, will receive a full refund less a $100 processing fee.
- No refunds will be made for cancellations received after September 18, 2016, or for no-shows.

Hotel Reservations
Hotel selections and reservations for the 2016 Tumor Section Satellite Symposium are in conjunction with the 2016 CNS Annual Meeting.

Visit www.cns.org/tumor16housing to review housing availability and book your hotel through Wyndham Jade, the CNS official housing bureau.

Hotel Deposit
A deposit of one night's room and tax is due at the time your hotel reservation is secured. This payment must be submitted with your registration fee and will be charged to the credit card provided. Please make checks payable to: CNS Registration and Housing Center at 6100 W. Plano Parkway, Suite 3500, Plano, TX 75093. All rooms are subject to applicable state and local taxes. A small portion of your room rate will be used to help defray the cost of registration and housing services. Hotel reservations requested without deposit will not be processed.

Hotel Change/Cancellation Policy
The deadline date for new reservations is September 11, based on availability. The hotel requires a deposit of one night’s room and tax to reserve your room. Please make any changes or cancellations through the CNS housing bureau, Wyndham Jade, through September 11. Beginning September 12 and up to 72 hours prior to your arrival, changes and cancellations must be made directly with your reserved hotel. If cancellation notice is not received according to the hotel policy, the deposit will be forfeited. Your individual hotel's cancellation policy can be found in your emailed housing confirmation.

Onsite Registration Hours

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Hotel Rates and Map

Hotel Room Rates
All Tumor Section Satellite Symposium hotels include complimentary guest room Internet.

1. Marriott Marquis San Diego Marina—Headquarters Hotel (City View) (Walkable to Convention Center)
   - Single/Double: $306.00 / $344.25**

2. Marriott Marquis San Diego Marina—Headquarters Hotel (Bay View) (Walkable to Convention Center)
   - Single/Double: $326.00 / $366.75**

3. Omni San Diego Hotel (Walkable to Convention Center)
   - Single/Double: $279.00 / $315.49

4. Embassy Suites San Diego Downtown
   - Single/Double: $285.00 / $321.34

5. Hilton San Diego Gaslamp Quarter (Walkable to Convention Center)
   - Single/Double: $279.00 / $314.43

6. The US Grant Hotel San Diego
   - Single/Double: $259.00 / $292.07

7. The Westin San Diego Gaslamp Quarter
   - Single/Double: $249.00 / $280.80

* Tax rates subject to change.
** An additional daily CA Tourism Fee ranging from $0.44 to $0.77 per room per night will be charged on site by the hotel and is not included in the 1st night’s room and tax deposit.
**REGISTRATION FORM**

**Name**  
**Member ID#**

**Organization/Company**

**Address**

**City**  
**State**  
**Zip**  
**Country**

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**Daytime Phone Number (Include country code if applicable)**

**Fax Number**

**Preferred Email Address—confirmations are sent via email**

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**Tumor Section**

**Satellite Symposium**

**SAN DIEGO, CALIFORNIA • SEPTEMBER 23-24, 2016**

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**Required NPI Number**

Please provide us with your NPI (National Provider Identifier) Number

Please help us collect accurate attendee demographics by indicating which practice setting most applies to you.

- [ ] Private Practice
- [ ] Academic Institution
- [ ] Mixed Academic/Private Practice
- [ ] Hospital Employed
- [ ] Military
- [ ] Retired
- [ ] Other _____________________________

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**Americans with Disabilities Act:**

- [ ] Please check here if you may require special accommodations or services in order to attend. You will be contacted by a CNS representative.

**Special Dietary Restrictions:**

- [ ] Vegetarian
- [ ] Kosher
- [ ] Other(please specify) __________________________________

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**Early Bird Registration Deadline is August 25, 2016**

**Registration Fees**

Please select the appropriate registration fee:

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<th>On or before 8/25</th>
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<tr>
<td>Tumor Section Member</td>
<td>$375</td>
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<tr>
<td>Non-member</td>
<td>$575</td>
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<td>Residents/Fellows*</td>
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<td>Physician Assistants</td>
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<td>Medical Students**</td>
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*All Domestic Residents: Your Program Director must sign the statement below: I certify that the individual named above is a Resident in a neurosurgical training program accredited by the ACGME and the Residency Review Committee for Neurosurgery.

**Program Director (Print Name)**

**Program Director Signature**  
**Date**

**Medical students must provide copy of student ID**

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**Friday, September 23**

**31st Anniversary Gala Dinner**

One ticket is included in registration fee.

- [ ] I will be attending the 31st Anniversary Gala.
- [ ] I would like to order additional tickets. Quantity__________@ $150.00 each

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**Saturday, September 24**

**Breakfast Breakouts for Residents, Fellows, Medical Students, and Young Attendings**

Included in registration fee. Please select which breakfast session you wish to attend. Select only one.

- [ ] Developing a Research Program/Lab
- [ ] Clinical Trial Investigators
- [ ] Finding a Brain Tumor Surgeon Position

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**Method of Payment**

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**MasterCard**  
**Visa**  
**American Express**

**Credit Card Number**  
**Exp. Date**  
**Security Code**

**Print name as it appears on credit card**

**Signature**  
**Date**

I authorize the CNS to charge my credit card for the total payment due, acknowledge that the CNS registration cancellation policies are in effect and grant the CNS and the Tumor Section permission to use photos taken at the Tumor Section Satellite Symposium which include me in promotional materials for future meetings.
Stay for the CNS Annual Meeting and take your skills and knowledge to the next level with cutting-edge demonstrations and hands-on practice of techniques.

**OPERATIVE NEUROSURGERY SESSIONS**

**LIVE** Neuroendovascular Surgery: Novel Devices and Treatment Controversies  
Featuring a live demonstration with the VascSim simulator

**LIVE** Endoscopic Endonasal Resection of Nonsecretory Pituitary Macroadenoma  
Featuring a live surgery being performed and video-streamed from Thomas Jefferson University in Philadelphia

**PRACTICAL COURSES**

Comprehensive Endoscopic Skull Base Surgery: Hands-on Cadaver Course—Part 1 and 2  
Complex Skull Base and Brain Tumor Surgery: 3D Surgical Anatomy and Technical Nuances  
Surgical Management of Eloquent Area Tumors: Functional Mapping and/or Navigation  
Brain Metastases: Case-Based Approach to Surgery, Radiosurgery, and Laser Ablation  
Pituitary Surgery: Indications, Techniques, and Outcomes...AND MORE!

**CORPORATE DEMONSTRATIONS IN THE EXHIBIT HALL**

**LIVE** Surgery presentations daily, in-booth demos of the newest technologies and techniques, industry-sponsored lunch-and-learn sessions, simulation stations, and more!

Register today at cns.org/2016  
Receive $100 off when you enter the promo code from your Tumor Section Satellite Symposium confirmation email
EXHIBITORS

at last year’s
Tumor Section Satellite Symposium

American Brain Tumor Association
Arbor Pharmaceuticals, Inc.
Zimmer Biomet
Brainlab, Inc.
Elekta
Elsevier, Inc.
Ethicon, Inc.
Foundation Medicine, Inc.
Integra LifeSciences
Medtronic
Monteris Medical, Inc.
Novocure, Inc.
Stryker
Synaptive Medical, Inc.
Tocagen
Varian Medical Systems, Inc.

Join us this year for more!
Tumor Section
Satellite Symposium
Low-grade Gliomas: Management Strategies & Innovations
SAN DIEGO, CALIFORNIA • SEPTEMBER 23-24, 2016
SAN DIEGO CONVENTION CENTER
JOIN US! REGISTER NOW AT CNS.ORG/TUMOR